

# Non-Core Vocabulary Cognates in Ryukyuan and Kyushu\*

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The present paper provides an overview of eighteen identified likely cognates from Ryukyuan and Kyushu regiolects which the author argues have been inherited from Common Kyushu-Ryukyuan (CKR). The alleged cognates all belong to non-core vocabulary, the working definition of which adopted here is “vocabulary not found on the basic vocabulary lists of Swadesh 200 and Leipzig-Jakarta.” Following Hock (1991), the author presumes that in equal relations between language communities – the relations between Pre-Proto-Ryukyuan speakers while they still inhabited the Kyushu area and speakers of other Kyushu-Japonic regiolects are believed to have been such – the so-called basic vocabulary is no more resistant to borrowing than the non-basic (including culture-specific and environment-specific) lexicon. One can thus infer that a study of non-core vocabulary would be a valuable contribution to the state of knowledge on the history of the southern Japonic language area. Consequently, this paper analyzes the distribution of putative CKR cognates in both Kyushu and the Ryukyus as well as the typology of shared features among them, discussing these against a broader Japonic background when relevant. Preliminary results show the most shared features between the Ryukyuan and Tokara regiolects, encouraging an identification of the final stage of Pre-Ryukyuan with Common Tokara-Ryukyuan. The division of the next lowest order also includes Ōsumi and Koshiki islands, implying that the pre-final stage of Pre-Ryukyuan was what is here called Common Insular Kyushu-Ryukyuan.

**Keywords:** comparative linguistics, Kyushu, Ryukyuan, Kyushu-Ryukyuan, Japonic

1. Background
2. Analysis of the vocabulary
3. Analysis of the outcome

## 1. Background

In this paper, I will provide a sample of non-basic vocabulary shared by Ryukyuan languages and mainland Japanese Kyushu dialects which I hypothesize to be likely descendants of the Common Kyushu-Ryukyuan (CKR) language. By CKR I mean a historical regiolect, or a set of closely related regiolects, spoken somewhere in the

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present-day Kyushu area, from which Proto-Ryukyuan (PR) eventually branched off, as Japonic settlers moved south to the Ryukyus; this movement, according to one of the conceivable hypotheses, is estimated to have taken place starting in the 10th century (cf. Serafim 2003, Pellard 2015, Karimata 2017).

The division of the Japonic family into Mainland and Ryukyuan groups has been generally undisputed (Pellard 2015), although the phylogenesis of the eastern Japonic regiolects including Hachijō is still a subject of debate.<sup>1</sup> Consequently, the regiolects spoken on mainland Kyushu and in the surrounding islands (such as Ōsumi, Tokara, or Gotō) have also traditionally been classified as Mainland. Nevertheless, an increasingly popular agreement is that Japonic speakers came to the Ryukyus from Kyushu, which appoints Kyushu as the most likely homeland of Proto-Ryukyuan (Thorpe 1983, Serafim 2003, Pellard 2015, Karimata 2017). This implies that regiolects from the Ryukyuan group used to be spoken in Kyushu, but have become extinct due to the expansion of Mainland Japanese; these regiolects likely converged with the dominant language(s) in the process. Such an assumption encourages a revised division of the Japonic phylogenetic tree into Kyushu-Ryukyuan and Mainland (Central) groups (Thorpe 1983, Igarashi 2018).

Research of shared Kyushu-Ryukyuan innovations (Igarashi 2017, 2018) localizes the closest relatives of Ryukyuan in Kagoshima Prefecture and the Morokata area of Miyazaki Prefecture. An alternative approach, looking at grammatical/morphophonological features, (Serafim 2003) considers the possibility of Ryukyuan branching off of the northeastern Kyushu/westernmost Honshu area. With either approach, the exact location of the CKR-speaking area remains unidentified, and so do the locations of modern Kyushu regiolects with significant CKR substratum which would reveal a former CKR-affiliated language.

The goal of this paper will thus be to analyze a number of vocabulary items which appear traceable to CKR as cognates and localize the Kyushu regiolects that share these items with Ryukyuan.

To be included into the present analysis, specific vocabulary items need to meet the following conditions:

- a. The vocabulary items do not represent core/basic vocabulary.

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<sup>1</sup> Hirako and Pellard (2013: 65) conclude their discussion of conservative and innovative features of Hachijō by proposing that Hachijō is either a sister language of Ryukyuan and Central (Mainland) Japanese or belongs to a separate group as opposed to a common Ryukyuan-Central group. In contrast, Igarashi (2018: 2, 17) argues that Hachijō is only one of subdivisions of the Extended Eastern Japanese group (*kakudai higashi nihongoha*), which it shares with other modern eastern Japanese regiolects, and not a sister language to the Ryukyuan and Central groups.

The working definition of core vocabulary adopted in this paper is simply “vocabulary not found in the Swadesh 200 and Leipzig-Jakarta basic vocabulary lists.”<sup>2</sup>

There are two factors that influenced my decision to focus on non-core vocabulary in this study. First, core vocabulary lists by definition tend to include conservative items which hardly change over time. Given the relatively low time depth of Proto-Japonic (PJ) split into putative (Pre-)Mainland and (Pre-)Ryukyuan groups (Pellard 2015 concludes that the split occurred in the late Yayoi period, meaning sometime around the 3rd century CE; incidentally, Hattori 1957 dates the split of PR from PJ at around the 3rd century CE too, although the lexicostatistical method he used for the calculation would currently be untenable; cf. Campbell 1998:177–181) and naturally even later split of CKR, this leaves a relatively low degree of divergence among basic vocabulary in Ryukyuan, Kyushu, and other Japonic areas,<sup>3</sup> with the consequence that it is not possible to draw conclusions regarding the shared features between Ryukyuan and specific Kyushu regiolects merely by comparing the presence or absence of specific vocabulary items. Only through a significant increase of the examinable vocabulary sample can one investigate patterns of distribution that will imply the existence of a CKR substratum in the investigated Kyushu regiolects.

Another point is that, although the very purpose of establishing basic vocabulary lists is to ensure their low degree of borrowability (cf. Tadmor and Haspelmath 2009), basic vocabulary is in fact borrowable, especially in the case of an equal power relation between the communities in question. On the other hand, the prestigious sections of the lexicon, such as cultural notions, may be more easily borrowed from a more prestigious language of a dominant community (Hock 1991: 411). Since one can assume an equal relationship between the CKR communities and their non-CKR, phylogenetically divergent Kyushu neighbors, it seems that, paradoxically, non-core vocabulary would be less susceptible to borrowings – or, at any rate, no more susceptible – than the so-called basic vocabulary.<sup>4</sup>

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<sup>2</sup> For Swadesh 200, cf. DiACL homepage. For Leipzig-Jakarta, cf. Tadmor and Haspelmath (2009).

<sup>3</sup> According to Hattori’s (1957: 330) lexicostatistic calculations, the percentage of shared vocabulary in his examined sample does not fall below 59% (percentage of shared vocabulary between Miyakoan and Tokyo or Kyoto). The figure rises to 70% when comparing the allegedly most distant Ryukyuan regiolects in Hattori’s sample, Ishigaki (Yaeyaman), and Yamatohama (Amamian).

<sup>4</sup> One might draw an interesting parallel between the putative CKR compared to mainland Kyushu regiolects and English compared to the language of the Nordic people called Danes in Pre-Norman England, with the resultant abundance of Old Norse borrowings into English precisely in the realm of basic vocabulary (a case presented by Hock 1991: 409–410).

b. The vocabulary items are attested at least in Kyushu and South Ryukyuan.

Items shared only by North Ryukyuan and Kyushu are not considered.

Since the Satsuma invasion of the Ryukyu Kingdom in 1609, which resulted in the subjugation of the Kingdom to Satsuma as well as the incorporation of the Amami islands into Satsuma domain, Ryukyuan languages had been exposed to an in-depth, prestige-related influence of the Mainland language of Satsuma. Even prior to that, the Ryukyu Kingdom maintained an animated trade relationship with Kyushu, which conceivably enabled an influx of cultural loanwords. This is especially the case with North Ryukyuan languages due to geographic and political factors (cf. also Karimata 2015, 2017, or Igarashi 2018). Similarities between North Ryukyuan and Kyushu are therefore likely to reflect borrowings rather than inherited CKR lexicon; on the other hand, similarities between Kyushu and South Ryukyuan islands, which were geographically isolated and generally exposed to Kyushu only directly via North Ryukyuan mediation, present a much lower possibility of representing an effect of borrowing. The likelihood of the tokens under discussion being actual CKR cognates increases even more if a given item is only found in Kyushu and the Southern Ryukyus, but not in the Northern Ryukyus, in other words, if a given item is a CKR retention lost in the languages of the Northern Ryukyuan group; as expected, however, such instances have so far been extremely rare.

c. The vocabulary items represent any of the following:

- > a shared lexical innovation;
- > a shared semantic innovation;
- > a shared sound innovation;
- > a shared lexical or phonological retention with the condition that other instances of such retention are not observed anywhere else in Kyushu.

Be it lexical or phonological, shared retentions are usually not considered in historical linguistics due to not being a valid criterion for phylogenetic subgrouping (Harrison 2003). Also, here, retentions will be treated with more caution than items which appear to be innovations limited to Kyushu and the Ryukyus. Since, however, the purpose of this paper is essentially to search for CKR features remaining as substratum in modern Kyushu regiolects, those CKR features that are retentions from PJ or any other earlier (putative Pre-Kyushu-Ryukyuan) proto-language state and are not distributed elsewhere in Kyushu should still be relevant to the present study as substratum features that have resisted replacement by the features of the dominant

Mainland dialects. Also, while retentions are insufficient as a criterion for subgrouping, they are sufficient for excluding certain subgroupings, indirectly testifying against certain phylogenetic configurations.<sup>5</sup> Thus, although shared retentions cannot be used in favor of arguing for the existence of CKR, they may be of use as secondary evidence of conservative features reconstructible for CKR. At any rate, the least that can be said about such conservative features is that they can be reconstructed for the common ancestor of the regiolects in question.

In further sections of the paper I will present eighteen vocabulary items that meet the criteria a–c, which have been categorized semantically as plants, animals, human body parts, verbs, and miscellaneous. For each item, I will list the putative cognates as found respectively in the Kyushu, North Ryukyuan, and South Ryukyuan regiolects. Then, I will comment on the distribution of each item, its possibility of being a loanword, and, in the case of retentions, hypothetical or attested cognates outside the Kyushu-Ryukyu area.

In the final part of the paper, I will discuss the outcome of the analysis by identifying the Kyushu areas where the density of shared putative CKR items is the thickest. I will also synthesize the innovations that can be attributed to the alleged CKR genetic subgrouping and suggest conceivable CKR proto-forms for each item.

A disclaimer needs to be made that, although, compared to what is usually thought about this kind of vocabulary, there is generally a lower likelihood that the non-core vocabulary discussed in this paper represents loanwords rather than cognates, the possibility that some are loanwords cannot be discarded, especially since lexical items are those elements of the language system that tend to be most easily borrowed (Thomason 2001: 70). The method of searching for CKR substrata in Kyushu as experimentally adopted in this paper should be thought of as supportive and complementary to other comparative methods, such as comparisons of core vocabulary or grammatical systems.

### 1.1. Terminology

To facilitate the discussion about notions specific to this paper, the following terms will be used as specified below.

- **Common Kyushu-Ryukyuan:** any language natively shared by the inhabitants of Kyushu and speakers of Pre-Proto-Ryukyuan. I deliberately avoid the term “Proto-Kyushu-Ryukyuan” in order to avoid the connotations

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<sup>5</sup> That is to say that if among languages A, B and C, A and B have a conservative feature X while C has an innovative feature Y, this precludes grouping A or B together with C.

of a proto-language being a single-stage synchronic entity fixed at a certain point of time. As the results of this study will show, there are multiple layers to Ryukyuan linguistic ancestorship in Kyushu, and until the final part of Section 3, the term of CKR may refer to any of these layers.

- **Pre-Proto-Ryukyuan:** the direct ancestor language of today's Ryukyuan languages spoken in the Kyushu area (understood here as any area to the north of the Amami islands). It can also be conceived of as the last language spoken by the future Ryukyuan population before it migrated to the Ryukyus.
- **item:** a group of lexemes which can be traced to a single proto-form.
- **token:** specific lexemes as realized in specific regiolects which, put together, constitute an item.
- **far south:** the area of today's Kagoshima and Okinawa prefectures.
- **mainland Kyushu regiolect** (spelled with a lowercase <m>, as opposed to "Mainland," referring to a genetic subdivision of Japonic): a regiolect spoken on the main island of Kyushu.
- **insular (remote) Kyushu regiolect:** a Kyushu regiolect spoken on the smaller islands offshore, as opposed to the mainland Kyushu regiolect. This expression usually refers to the Tokara, Ōsumi or Koshiki islands.

Concerning the treatment of region and regiolect divisions in Kyushu, regiolects spoken in Kagoshima prefecture are presented in a significantly more detailed way than those of any other Kyushu area. The reason behind this is that, as will be made clear through the vocabulary discussed in Section 2, Ryukyuan shares many more putative cognates with Kagoshima prefecture regiolects than with any other Kyushu area, which increases the demand for a relatively precise geographic division of the Kagoshima linguistic landscape.

Ryukyuan regiolects are presented by indicating the name of the island, followed by the name of a specific settlement if applicable (example: Miyako-Hirara).

Insular Kyushu regiolects are presented through the name of the island group, followed by the name of specific island (example: Tokara-Takara), or just by the name of the island (example: Kamikoshiki).

The mainland regiolects of Kagoshima prefecture are divided into Satsuma, Ōsumi Peninsula, and Morokata, and are further specified following a hyphen (example: Satsuma-Ibusuki).

Other Kyushu regiolects are presented by indicating the prefecture, and then the regiolect following the hyphen (example: Kumamoto-Kagamimachi). The lack of a

hyphen indicates the regiolect of the capital (eponymous) city of the prefecture (example: Fukuoka).

In presenting the vocabulary, the following regiolect group abbreviations will be used: KY for Kyushu, NR for North Ryukyuan, SR for South Ryukyuan.

## 1.2. Lexicographic sources

The core of the database utilized in this paper has been provided by Hirayama (1992) (for all of Japan's area, including the Ryukyus), Hashiguchi (2004) (for the regiolects of Kagoshima prefecture), Nevskiy (1922–1928) (mostly Miyakoan, but also containing data on other Ryukyuan, Kyushu, and different Mainland Japanese regiolects; cf. also the digitalization in Jarosz 2015), and Miyara (1980 [1926]) (thematic listing of Ryukyuan as well as Kagoshima's Hioki and Kagoshima city vocabulary). The extraction of sample tokens has been supplemented by dictionaries of specific languages and regiolects, such as Kokuritsu Kokugo Kenkyūjo (1963) (Shuri-Okinawan), Oshio (2009) (Ie-Okinawan), or Miyara (1980 [1930]) (Yaeyaman). The botanical sources Amano (1979) and Shirai (2008) were consulted for plant-related vocabulary.

## 1.3. Note on previous studies

Nohara (1979–1983) contains a comprehensive listing of vocabulary shared by Kyushu and Ryukyuan. As the label itself implies, however, it is literally a list of vocabulary with (often superficial) formal and semantic similarities, and not a historical/comparative study, so its applicability to the research on CKR is limited.

Igarashi (2017, 2018) are reports on a project which scrutinizes the Japonic lexicon, including the items listed in Nohara's papers, so as to find regional shared innovations that will allow for a reevaluation of the traditional division of the Japonic family tree into Ryukyuan and Mainland. Igarashi's conclusion is that the shared innovations (and the consequent phylogenetic subdivisions) in Japan's far south form a kind of “matrioshka” distribution pattern: the Southern Japanese language group, which Igarashi proposes as a sister language to Mainland and Eastern Japanese in place of the traditional Ryukyuan vs. Mainland groups, contains the Southwestern Kyushu-Ryukyuan subgroup, which in turn contains the Southern Kyushu-Ryukyuan group.

Upon eliminating loanwords and retentions, Igarashi's (2018) revision of Nohara's papers contributed to an updated listing (*ibid.*, 7–11) of probable innovative Kyushu-Ryukyuan cognates. I will indicate the items in this paper which also appear on Igarashi's list.

## 2. Analysis of the vocabulary

### 2.1. Plants

#### ‘Chinese banyan’, *Ficus microcarpa*

KY kadzumaru (Ōsumi-Kuchinoerabu), kadzimaru (Tokara-Suwanose), kadzumoi (Tokara-Takara), gadzimaru (Tokara-Io, Ōsumi-Yaku), gadzimori (Tokara-Akuseki)

NR gadzimaru (Okinawa-Shuri, Okinawa-Nago, Kikai, Yoron, Okinoerabu, Amami-Naze), gadzimaru (Amami-Yamato, Tokunoshima), gatumaru (Amami-Koniya)

SR gadzima-gi: (Miyako-Hirara), gatsipana-gi: (Irabu-Sawada), gadzipana-gi: (Ikema<sup>6</sup>-Sarahama), gadzamunje: (Ishigaki-Shika), gadzimari (Kuro), gadzamani (Hateruma)

Given that the Okinawan word form *gadzimaru*, widely spread in the Ryukyus, was actually borrowed as a “native” name for the tree in question into standard Japanese, one can be rather confident that the identical forms in the Io and Yaku islands are Okinawan borrowings, too. Focusing on the initial morpheme,<sup>7</sup> PR \*gadu/gadzu, however, one can find mostly regular, predictable correspondences between Kyushu and Ryukyuan tokens. It may be therefore an idea worth entertaining that the remaining insular Kyushu tokens, or at least some of them, have been inherited from CKR. The fact that a few of Kyushu tokens have an initial voiceless velar as opposed to Ryukyuan’s voiced counterpart is perhaps an example of occurrence of the alleged irregular \*k > \*g / #\_\_\_[-high] development in Ryukyuan and its closest Kyushu relatives, as also observed in ‘crow’ introduced in this paper, and also discussed for ‘crab’,<sup>8</sup> ‘whale’, and ‘crow’ in Thorpe (1983).

#### ‘grapevine’, *Vitis ficifolia*

<sup>6</sup> Sarahama is a settlement located on Irabu, but genetically it is a subregiolect of Ikema, hence the decision to indicate it as a representative of Ikema.

<sup>7</sup> Although the meaning of \*gadu is unclear, the comparison of the ‘Chinese banyan’ tokens shows that *gadzumaru* cognates are compounds with a boundary following *gadzu*. The second composite of the compound, *pana-gi*: ‘flower-tree’, is transparent in the case of Miyakoan.

<sup>8</sup> ‘Crab’ tokens with a voiced initial can also be found in Tōhoku and elsewhere in mainland Japan. Therefore, either the change \*k > \*g was a parallel innovation, or these initial velars reflect a yet different sound/sound sequence from PJ. This is a proposal put forward by Vovin (2009b: 20), who claims that this initial PR \*g reflects PJ \*nk.



KY *kanebu* (Saga, Nagasaki, Kumamoto, Miyazaki, Morokata, Kagoshima, Tanega, Yaku, Koshiki), *kaneb* (Satsuma-Makurazaki; Ōsumi Peninsula-Kimotsuki)

NR *hanifu* (Okinoerabu), *hanibu* (Okinoerabu, Yoron, Okinawa-Kunigami, Nakijin, Ōgimi), *kanifu*, *kanibu*, *kanibu* (Tokunoshima), *kanibu*, *ganibu* (Amami-Naze)

SR *kaniv* (Tarama, Irabu), *kaniu* (Ikema), *kanifun* (Ishigaki-Shika), *kanifu* (Taketomi), *kanibu* (Yonaguni), *kanin* (Hatoma, Yonaguni)

This item with perfectly matching sound forms with Ryukyuan is encountered in all of the Kyushu prefectures except Fukuoka. Ryukyuan reflexes for their part are also fairly regular, with little of the idiosyncrasy often encountered in plant names.

The same name is also used with the meaning ‘wild grape’ (*Ampelopsis glandulosa* var. *heterophylla*) in all three regiolect groups.

## 2.2. Animals

### ‘dragonfly’

KY *akedzu* (Miyazaki – ‘a brownish subspecies that appears around the time of the obon festival’, Hirayama 1992/4: 3599; Kagoshima-Higashi Morokata, including the genus *Sympetrum*, cf. Hashiguchi 2004: 73), *akes*, *akecmero* (Satsuma proper), *akec* (Satsuma-Sendai, Ibusuki, Satsuma proper; Kita Morokata, Ōsumi Peninsula-Kimotsuki), *ke:dzu* (Kamikoshiki)

NR *ake:dza* (Okinawa-Nakijin), *ake:dzu* (Okinawa-Shuri)

SR *akidzi* (Miyako-Hirara, archaic), *ake:dzi* (Tarama), *ake:ntsi* (Kohama), *a:gettsi* (Taketomi), *hake:dzi* (Kuro), *kake:dzi* (Ishigaki-Shika, Aragusuku)

A cognate of this item, *akidzu* (*akyiNtu* in Vovin’s 2009a: 518, 519, 703 rendition), is attested in Old Japanese, therefore it cannot be a CKR lexical innovation. The crucial link between the Kyushu and Ryukyu tokens comes down to a shared sound which distances them from the Mainland variant: The Ryukyuan vowel in the second syllable match the vowel in Kyushu, reconstructible as CKR *\*akedu*/*\*akedzu*, while the OJ form displays the *otsu* variant of the vowel <i> (Vovin’s 2009a /yi/, Frellesvig’s 2010 /wi/), which is an innovation from PJ *\*e*.

### ‘butterfly’

KY *habi*: (Takara-Tokara, Kodakara)

NY habura (Amami-Naze), haberu (Okinawa-Shuri), fabe:ru (Okinawa-Kin)

SR pabi:z (Miyako-Hirara), pabil (Irabu-Sawada), pabiru (Tarama), pabiru (Ishigaki, Hatoma, Kuro), papiru (Hateruma)

The Ryukyuan item ‘butterfly’ seems morphologically complex, and although fragmentary matches or at least some formal similarities with this item can be found dispersed discontinuously in mainland Japan (cf. Hachijō *he:rume*, Hyōgo *be:ro*, Kōchi *hi:ru*; the *bero/beru*-related morphemes are also found in vocabulary indicating ‘dragonfly’, also in Ryukyuan – cf. Hirara *bi:z*), the only complete match is found in the cited Tokara tokens. The fact that Tokara *habi:* seems to produce an exact match with Miyakoan Hirara and Sawada forms is especially interesting, as those may be conservative reflexes retained in distant CKR relatives.

Thus, considering the Ryukyuan correspondences, variant CKR and PR forms \*paberi and \*pabero can be proposed.

Included in Igarashi (2018: 8).

### ‘spider’

KY kobu (Fukuoka-Chikugo, Saga, Nagasaki, Kumamoto-Kagamimachi, Miyazaki), ko:bu (Kamikoshiki)

SR kuv (Miyako-Hirara), ku: (Ikema), kuvu (Tarama)

The item ‘spider’ with medial consonant /b/ or prenasalized /mb/ as such is also found in the Tōhoku area (examples: Hachinohe, Aomori, Akita *kūmbo*, Akita-Kawabe, Hirosaki *kūbo*), so this development is not specific to the Kyushu-Ryukyu area and does not imply a shared innovation. What sets the Kyushu-Ryukyu cognates apart from the rest of the Japonic area is the reflexes of a proto-language mid-vowel \*o, as evidenced not just by the presence of /o/ in the modern Kyushu dialecticisms, but most importantly in Miyakoan /ku/ reflexes (PR \*ku reflects in Miyakoan as /fu/, as in \*kumo > *fumu* ‘cloud’). Although it is up for debate whether this alleged CKR \*ko in ‘spider’ is a retention or innovation, the proto-form \*kobu was apparently spread in the whole of the relevant area and carried as such into PR.

Included in Igarashi (2018: 7).

### ‘lizard’

KY wakagi: (Tokara-Takara)

NR wahagirja (Amami-Yamato)

SR bakagzza (Miyako-Hirara), bakaddza (Ikema), bagira (Ishigaki-Shika)

The morpheme *kiri* as a part of compound items indicating ‘lizard’ has a significantly wider distribution in Kyushu than the combination *waka* + *kiri*, as it can be found both in mainland and insular Kagoshima as well as Fukuoka, Kumamoto, and Miyazaki. It is also attested outside the far south area, in Yuki (Hiroshima Prefecture) as *dzo:rikiri* and Yamaguchi as *tokakiri*. The change *\*kiri* > *kira* (SR)/*kirja* (NR) is, however, limited to the Ryukyu area (cf. also *djenagirja* in Kakeroma-Osai, or *tsuma-girja* in Amami-Naze).

The compound that includes the morpheme *\*waka* ‘young’ outside of the Ryukyus is only attested in Tokara. Apparently it was a shared innovation which further developed into the respective *\*-girja* (NR) or *\*-gira* (SR) forms. According to a study by Tōyama et al. (1980: 27–29), in Miyakoan the *\*wakagiri* > *\*wakagira*-related forms usually refer to the endemic Sakishima species *Plestiodon kishinouyei* (English name ‘Kishinoue’s giant skink’), but it can be more loosely used to refer to different species of lizards.

### ‘snake’

KY hebu (Tokara-Takara), he:bu (Kamikoshiki)

NR habu (Amami-Naze, Okinawa-Shuri, Kadena), fabu (Okinawa-Nakijin)

SR pav (Hirara-Miyakoan), hau (Ikema), po: (Tarama-Shiokawa), pau (Tarama-Nakasuji, Aragusuku) pabu (Hatoma), paku (Hateruma), papu (Kohama), pan (Kuro)

The important point in this item is the final back vowel, which is opposed to the front vowel distributed in all of Japan in the vein of standard Japanese *hebi*. This back vowel is not found in mainland Kyushu, but is attested on the islands of Tokara and Koshiki, hinting at a shared CKR innovation. At the same time, no Kyushu regiolect provides evidence of an *\*e* > *a* change in the first syllable, leading to the conclusion that putative PJ *\*pebi* first underwent a change to *\*pebu* in CKR, and then to *\*pabu* in the Ryukyus only.

The back vowel is also attested in the Hokuriku area of Honshu: *hebo* in Gokayama (Tōyama prefecture) and *he:bu* in Fukui. Considering the insular nature of the occurrence of the back vowel in Hokuriku and in the far south, it seems plausible that this *\*i* > *u* (and later > *o*) is an instance of unrelated parallel innovation, although there

is also a slight and at the moment undisprovable chance of a randomly shared PJ retention.

**‘crow’**

KY *garasu* (Tokara-Takara, Nakano)

NR *garasi* (Amami-Naze), *garasa*: (Nakijin)

SY *garasa* (Miyako-Hirara, Ikema, Hatoma), *garaea* (Tarama)

Voicing of the initial velar, as opposed to standard Japanese *karasu* and its peers, is exclusive to Tokara and the Ryukyus, and as such is a good candidate for a shared innovation. This is the same environment as the one discussed for ‘Chinese banyan’ (2.1.). The assimilation of the final close vowel into [a] is a Ryukyuan innovation apparently not shared by the Amami regiolects (or at least not by Naze).

**‘hermit crab’**

KY *amamu* (Tokara-Takara)

NR *aman* (Amami-Naze, Yoron, Tokunoshima, Okinawa-Shuri), *amamu* (Amami-Sumiyō, Okinoerabu), *ama:mu* (Okinawa-Nakijin)

SR *amam* (Miyako-Hirara, Ikema, Irabu-Nagahama), *aman* (Kuro, Hateruma), *amo*: (Iriomote)

The distribution of perfect cognates (both form- and meaning-wise) is limited to the Ryukyus and Tokara. There is also an alternative set, likely introduced through a later borrowing, encountered in the northern Amami islands with tokens such as *amami* (Amami-Kominato) and *amja:mi* (Kakeroma) phonologically relatable with the ‘cockroach’ item *amame* broadly distributed across the Kagoshima prefecture (also *amami* ‘cockroach’ in Satsuma-Hioki and Tokara-Toshima, and *amami* ‘sea roach’ in Satsuma-Miyanojō and Ōsumi Peninsula-Kokubu).

Included in Igarashi (2018: 11).

**‘wrasse’** (the family of marine fish *Labridae*)

Cognates of this item may refer to wrasses in general or to specific species, which also have been noted below.

KY kusabi (Satsuma-Izumi; apart from general ‘wrasse’ the name may refer to ‘Pseudolabrus sieboldi’, ‘Pseudolabrus eoethinus’, ‘Parajulis poecilepterus’ and a non-wrasse species of ‘Variola louti’ from the Serrenidae family); kusabi ‘Pseudolabrus sieboldi’, ‘Pseudolabrus eoethinus’, ‘Parajulis poecilepterus’ (Ōsumi islands-Tanegashima, Ōsumi Peninsula-Nishino Omote and Kumage); kusabi ‘Halichoeres melanurus’, ‘Halichoeres biocellatus’, ‘Bodianus perditio’, ‘Choerodon azurio’ (Ōsumi Peninsula-Kumage)

NR kusabi (Yoron, Okinawa-Shuri), kucaba (Okinawa-Shuri)

SR fusabz (Miyako-Hirara, Irabu-Sawada)

The distribution pattern reveals the presence of the item in question in both the North and South Ryukyus as well as Kagoshima Prefecture, especially in the Ōsumi islands and the northwestern shore of the prefecture. The scarcity of regions with attested tokens in the Ryukyus may result from a lack of lexicographic sources that would include the item in question, rather than breaks in its distribution.

Included in Igarashi (2018: 7).

## 2.3. Verbs

### ‘to rest’

KY jokou (Fukuoka, Kumamoto-Kagamimachi, Ōita-Notsumachi, Tokara-Takara), joku: (Miyazaki), joku: (Kamikoshiki, Kagoshima)

NR johojun (Amami-Naze), jufujun (Yoron, Ie), juku:jun (Okinawa-Shuri, Naha)

SR juku: (Hirara, Tarama, Irabu-Sawada), ju:ku:n (Hatoma), dugun (Yonaguni)

A verb attested in all of the Kyushu-Ryukyu area except for Nagasaki prefecture, and at the same time exclusive to this area. It is thus a fairly certain top-level CKR innovation.

Included in Igarashi (2018: 7).

### ‘to steal, to snatch’

KY bakau (Satsuma proper, Higashi Morokata), baka:au (Tanegashima)

NR not found

SR bako: (Miyako-Hirara), bakau (Irabu-Sawada), baku: (Tarama), bago:n (Ishigaki-Shika), ba:fu (Iriomote)

Another rare instance of the Kyushu-Ryukyuan lexical continuum broken with no known attestations in North Ryukyuan. The scarcity of attestations in Kyushu further increases the believability of this being an old verb traceable to a shared Ryukyu-(Kagoshima) Kyushu ancestor language.

Included in Igarashi (2018: 7).

### **‘to hatch’ (transitive)**

KY sudasu (Tokara-Takara)

NR sidijun (Amami-Naze; intransitive), eirasun (Okinawa-Nakijin)

SR sidasi (Miyako-Hirara, Sarahama-Ikema, Tarama), eidasun (Hatoma)

A perfect match between Ryukyu and Tokara, both phonologically and morphologically. No attestations outside the Ryukyu-Tokara area.

Included in Igarashi (2018: 11).

## **2.4. Human body**

### **‘skin patch’**

KY naba (Kamikoshiki)

NR not found

SR naba (Miyako-Hirara, Kurima), gaba (Ishigaki, Aragusuku, Yonaguni)

*Naba* is fairly widely distributed up to the Shikoku (Ehime) and Chūgoku (Hiroshima) areas with the meaning ‘mushroom’. An extension meaning ‘mold’ is attested in Kagoshima and the Northern Ryukyus, but not in the Southern Ryukyus. Quite fascinatingly, the meaning innovation ‘skin patch’ is only attested in Kamikoshiki and the Southern Ryukyus, but not in the Northern Ryukyus, hinting at a rare case of an innovation retained in (insular) Kyushu and South Ryukyuan without the mediation of North Ryukyuan.

### **‘lips’**

KY suba (most of the Kagoshima prefecture area, Kamikoshiki, Ōsumi, Tokara-Takara, Nakano; Miyazaki), tsuba (Satsuma-Ibusuki, Izumi, Komenotsu, Akune;

Morokata-Kobayashi, Ōita-Nozu, Kumamoto-Kagamimachi, Fukuoka, Iki, Gotō-Fukue)

NR *ɛiba* (Amami-Naze, Yara, Okinawa-Itoman, Yoron); *kutɛi-nu ɛiba* (Okinawa-Shuri); *suba* (Kikai, Kakeroma-Hyō)

SR *siba* (Miyako-Hirara, Ikema-Sarahama), *sipa* (Irabu-Sawada, Aragusuku, Hateruma), *mba* (Yonaguni)

With nothing resembling the phonetic shape of this item to the northeast of Kyushu, this is an unambiguous far south innovation. From the distribution of its two main variants, the [ts]-initial and [s]-initial, it would appear that the one with [ts] is the conservative form, while the [s]-initial form was an innovation limited to Miyazaki, Kagoshima, and the Ryukyus.

Included in Igarashi (2018: 9).<sup>9</sup>

## 2.5. Miscellaneous

### ‘gimlet’

KY *iri* (Satsuma proper, Morokata-Higashi Morokata, Ōsumi Peninsula-Kimotsuki, Sō), *i:* (Kamikoshiki, Satsuma-Makurazaki, Ibusuki, Kagoshima, Hioki; Ōsumi Peninsula-Aira, Sō; Morokata-Kobayashi, Kita Morokata), *igi:* (Satsuma-Akune, Izumi)

NR *iri* (Amami-Naze, Kasari, Koniya; Kikai; Tokunoshima; Okinawa-Shuri, Kadena, Itoman), *ʔiri:* (Okinawa-Nakijin), *iji* (Ie)

SR *i:z* (Miyako-Hirara), *i:* (Ikema), *i:l* (Irabu-Sawda), *il* (Tarama), *i:ru* (Hatoma), *iri* (Kohama, Kuro, Aragusuku), *i:ri* (Ishigaki-Shika, Hirae, Shiraho; Kohama, Aragusuku)

This item’s distribution is limited to southern Kyushu and the Ryukyus. A number of Kyushu as well as some Ryukyuan regiolects lenite or delete the proto-language \*r (*i:*, *il*, etc.), which suggests a possibility of variant \*iri/\*i: forms in CKR.

Included in Igarashi (2018: 9).

### ‘fish scales’

KY *iriko* (Tanegashima, Ōsumi Peninsula-Kumage, Nishino Omote), *iruko* (Kagoshima, Morokata-Kobayashi, Ōsumi Peninsula-Kimotsuki, Sō, Aira), *i:ko/iko* (Saga), *ira* (Ōita)

<sup>9</sup> Igarashi 2018 also considers the possibility that it is the [s]-initial form that is conservative and [ts]-initial innovative.

NR iriki (Amami-Naze, Kasari, Yamato, Koniya; Kakeroma-Osai, Okinawa-Itoman), i:ki (Yoron), irje:ki: (Okinawa-Nago), iritei (Okinawa-Shuri, Kadena), i:tei: (Okinoerabu)

SR izki (Miyako-Hirara), iriki (Aragusuku), irigi (Hateruma), iragi (Ishigaki-Shika, Shiraho), iragi (Kohama), iraki (Hatoma, Kuro), irja (Iriomote)

*Uroko* is the token predominant in most areas of Japan, as opposed to the Kyushu and Ryukyuan versions with initial [i] and a front vowel in the second syllable. The token *iroko* is also attested in Old Japanese, clarifying that initial [i] is not a CKR innovation. One should therefore look for CKR innovations in the presence of a front vowel in the second syllable, and these are found in mainland Kagoshima, on the Ōsumi islands, and in Saga. On the other hand, the \*o > \*e innovation in the last syllable is apparently exclusive to the Ryukyus. Many Kyushu and Ryukyuan regiolects also share the meaning extension for this item of ‘dandruff’.

It is also worth observing that Yaeyama and Ōita share the [a] vowel in place of a reflex of \*i in the second syllable, although the chances that this may reflect some innovative CKR variant form are admittedly slight.

Included in Igarashi (2018: 7).

### ‘outside (of the house)’

KY arake (Satsuma-Kushikino, Higashi Morokata)

NR ara: (Okinawa-Nakijin)

SR ara (Miyako-Hirara, Ikema); ‘outside clothes’ a:ra-kin (Shika-Ishigaki, Aragusuku), ara-kin (Kuro, Hatoma), ara-kinu (Kohama)

The item traceable to \*ara used as a noun and with the specific meaning of ‘outside’ has a very limited distribution both in Kyushu and in the Ryukyus, and no attestations elsewhere. As seen in the Kyushu and Yaeyama tokens, it is also frequently encountered in compounds rather than as a standalone lexeme. It is unclear if this item is an innovation in terms of both form and meaning, or if it is a meaning transfer from either of the popular Japonic adjectives/property concept morphemes ara- meaning respectively ‘new’ or ‘rough, coarse, crude’.<sup>10</sup>

<sup>10</sup> According to Hashiguchi 2004:125, the form *arake* was already attested in the 18<sup>th</sup> century Russian-Kagoshima Japanese Gonza-Bogdanov lexicon. It may also be worth considering to etymologically derive *ara* from *ada* ‘outside’, used in unspecified west Japan regions in 18th century according to the dialectal dictionary *Butsurui Shōko* (Tōjō 1941:162).



### 3. Analysis of the outcome

The outcome of the analysis in Section 2 has been summarized in Table 1.

A discussion of CKR subgroupings/levels that emerge from Table 1 needs to be preceded by a disclaimer that due to the limits and disproportions of the available lexicographic sources on Kyushu, the analyzed data may present some biases. For this reason, not all of the results in Table 1 can be taken at face value. For instance, the fact that of the Tokara islands, Takara seems to share the most features with Ryukyuan does not make the Takara regiolect the single closest relative of Ryukyuan – it simply means that out of the (unfortunately poorly documented) Tokara regiolects, the majority of sources pertain to Takara. By the same token, the fact that the ‘skin patch’ meaning innovation is attested for Koshiki, but not for Tokara, does not indicate a closer relationship of Koshiki over Tokara with Ryukyuan – most likely it simply means that the ‘skin patch’ meaning for Tokara has not been recorded.

Vocabulary items in Table 1 have been presented in increasing order concerning the area range, from the narrowest to the broadest.

Table 1 Non-core CKR cognate candidates

meaning	occurrence in Kyushu	shared Kyushu-Ryukyuan characteristic	putative CKR form
‘skin patch’	Kamikoshiki	meaning innovation ‘mushroom’ > ‘skin patch’	*naba
‘hermit crab’	Tokara-Takara	lexical innovation	*amamu
‘lizard’ (compound with the morpheme ‘young’)	Tokara-Takara	lexical innovation	*wakagiri
‘to hatch’	Tokara-Takara	lexical innovation	*sudas-u
‘butterfly’	Tokara-Takara, Kodakara	lexical innovation	*paberi/*pabero
‘crow’	Tokara-Takara, Nakano	change of the initial *k > g	*garasu
‘Chinese banyan’ (gajumaru)	Tokara islands, Ōsumi islands	lexical innovation; in Tokara-Akuseki and perhaps Io (Tokara) and Yaku (Ōsumi) change of the initial *k > g	*kadu/*kadzu > later, in a part of Tokara (and perhaps Ōsumi), *gadu/*gadzu
‘snake’	Tokara-Takara, Kamikoshiki	alleged innovation *bi > *bu	*hebu
‘outside of the house’	Satsuma-Kushikino, Higashi Morokata	lexical innovation or meaning innovation: ‘new’ and/or ‘coarse’ > ‘outside’	*ara
‘gimlet’	Satsuma, Ōsumi Peninsula, Morokata	lexical innovation; in part of the regions likely a shared irregular *igiri > *iri change (Igarashi 2018:9)	*iri
‘to steal, to snatch’	Satsuma proper, Higashi Morokata, Tanegashima	lexical innovation	*baka-u
‘wrasse’	Ōsumi Peninsula, Tanegashima, Kagoshima-Izumi	lexical innovation	*kusabi
‘dragonfly’	Miyazaki, Morokata, Satsuma, Ōsumi Peninsula, Kamikoshiki	reflection (alleged retention) of proto-language *ke	*akedu/*akedzu
‘fish scales’	Ōsumi Peninsula, Morokata, Satsuma, Ōita, Saga	sound innovation *iroko > *ireko	*ireko
‘lips’	Takara-Tokara and Nakano, Ōsumi Peninsula, Morokata, Satsuma, Miyazaki (narrow), Satsuma, Ōita, Iki, Gotō, Fukuoka (broad)	lexical innovation; in the narrow group innovation of the initial *tsu > *su	*suba (narrow group)
‘to rest’	everywhere except the northwest area (Saga and Nagasaki)	lexical innovation	*joko-u
‘grapevine’ and/or ‘wild grape’	everywhere except Fukuoka	lexical innovation	*kanebu
‘spider’	everywhere up to southern Fukuoka (Chikugo)	reflection (alleged retention) of proto-language *ko and *b/*mb	*kobu

### 3.1. Typology of shared features

A definite majority of the examined sample words constitute lexical innovations (there are twelve clear instances of lexical innovations, plus one possible one – ‘outside’). Among vocabulary that is also distributed elsewhere in Japonic, there is one clear (‘skin patch’) and one potential (‘outside’) meaning innovation, three sound innovations (‘crow’, ‘snake’, and ‘scales’), and two sound retentions (‘dragonfly’ and ‘spider’). Among the lexical innovations specific to the Ryukyus and Kyushu, in some items (namely ‘lips’, ‘gimlet’, and possibly ‘Chinese banyan’) there are further shared sound innovations observed for the Ryukyus and a smaller number of Kyushu regiolects, constituting a basis for a subdivision within the CKR area.

### 3.2. Geographical distribution and its implications

In general, the wider the area covered, the fewer shared items could be found. This conclusion matches Igarashi’s (2017, 2018) “matrioshka distribution” theory proposed for southern Japan and all Japonic-speaking areas in general.

Based on the tendencies inferred from Table 1, one can derive the following rough layers of CKR, starting from the smallest order (the lower the digit, the lower the phylogenetic/diachronic order), with makeshift labels added for the purpose of differentiation.

1. Common Tokara-Ryukyuan (CKR level 1).
2. Common Insular Satsuma-Ryukyuan (CKR level 2). This layer includes, apart from the Tokara islands, Ōsumi islands such as Tanegashima or Yaku, and the Koshiki islands.
3. Common Satsuma-Ryukyuan (CKR level 3). Here, the areas of CKR level 2 are joined by the regiolects of the Satsuma district, Ōsumi Peninsula, and Morokata.
4. Common Core Kyushu-Ryukyuan (CKR level 4). To this layer, the regiolects of Miyazaki prefecture are added.
5. Common Extended Core Kyushu-Ryukyuan (CKR level 5). In addition to Kagoshima and Miyazaki, this layer is composed of the regiolects of Kumamoto and Ōita.
6. Common Kyushu-Ryukyuan Proper (CKR level 6). This area includes regiolects from virtually the entire Kyushu area. At this point no conclusions can be proposed regarding whether this level should be divided even further through a graded inclusion of Nagasaki, Saga, and Fukuoka regiolects, although judging from the data introduced in this paper alone, the mainland Nagasaki and

northeastern Fukuoka areas in general do not participate in the innovations considered here.

Although the details such as the perspectives on the Ōita or Nagasaki regiolects differ, the CKR levels 3–6 as outlined above essentially match the phylogenetic results presented in Igarashi (2017 and 2018). As for the CKR levels 1–2, they warrant an in-depth consideration as the most likely candidates for the status of immediate kin of the Ryukyuan languages.

The Tokara islands appear as the obvious option, considering their geographic proximity to the Amami islands and considering that in the times of the migration of Pre-Proto-Ryukyuan speakers it was not possible to sail as a larger group of people, all together at one time, from mainland Kyushu directly to Amami. The same can be said about the Ōsumi islands located still closer to mainland Kyushu. On the other hand, the fact that the CKR level 2 also includes the Koshiki islands – in other words, the fact that the Ryukyuan languages share more non-core vocabulary features with Koshiki than with mainland southern Kyushu, even though the former can hardly be imagined to just have happened to “be there” when Pre-Proto-Ryukyuan speakers embarked on their migration journey off the southern Kyushu shore – is fairly intriguing. This observation thus leads to a tentative insular embarkation hypothesis: in other words, it is worth considering that Proto-Ryukyuan branched off from the languages of already insular populations. The shared prehistory of the Ryukyuan, Tokara, Ōsumi, and Koshiki regiolects may parallel a number of small-scale waves of inter-insular migrations, which may have been a commonsense solution to some of the easily imaginable problems of insular communities, such as overpopulation or lack of resources.

#### Abbreviations

CKR	Common Kyushu-Ryukyuan
KY	Kyushu
NR	North Ryukyuan
OJ	Old Japanese
PJ	Proto-Japonic
PR	Proto-Ryukyuan
SR	South Ryukyuan

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